1. Beyond Triads: Naming Other Chords
2. Sight-Reading Music
3. Dynamics and Accents in Music

Beyond Triads: Naming Other Chords
The name of a chord is determined by the relationship to the tonic of every note in the chord.

Introduction

Once you know how to name triads (please see Triads and Naming Triads), you need only a few more rules to be able to name all of the most common chords.

This skill is necessary for those studying music theory. It's also very useful at a "practical" level for composers, arrangers, and performers (especially people playing chords, like pianists and guitarists), who need to be able to talk to each other about the chords that they are reading, writing, and playing.

Chord manuals, fingering charts, chord diagrams, and notes written out on a staff are all very useful, especially if the composer wants a very particular sound on a chord. But all you really need to know are the name of the chord, your major scales and minor scales, and a few rules, and you can figure out the notes in any chord for yourself.
What do you need to know to be able to name most chords?

1. You must know your major, minor, augmented and diminished triads. Either have them all memorized, or be able to figure them out following the rules for triads. (See Triads and Naming Triads.)
2. You must be able to find intervals from the root of the chord. One way to do this is by using the rules for intervals. (See Interval.) **Or** if you know your scales and don't want to learn about intervals, you can use the method in #3 instead.
3. If you know all your scales (always a good thing to know, for so many reasons), you can find all the intervals from the root using scales. For example, the "4" in Csus4 is the 4th note in a C (major or minor) scale, and the "minor 7th" in Dm7 is the 7th note in a D (natural) minor scale. If you would prefer this method, but need to brush up on your scales, please see Major Keys and Scales and Minor Keys and Scales.

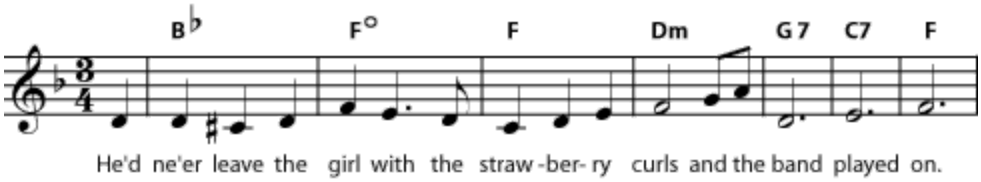
4. You need to know the rules for the common seventh chords, for extending and altering chords, for adding notes, and for naming bass notes. The basic rules for these are all found below.

Note: Please note that the modern system of chord symbols, discussed below, is very different from the **figured bass** shorthand popular in the seventeenth century (which is not discussed here). For example, the "6" in figured bass notation implies the first inversion chord, not an added 6. (As of this writing, there was a very straightforward summary of figured bass at Ars Nova Software.)

Chord Symbols

Some instrumentalists, such as guitarists and pianists, are sometimes expected to be able to play a named chord, or an accompaniment based on that chord, without seeing the notes written out in common notation. In such cases, a **chord symbol** above the staff tells the performer what chord should be used as accompaniment to the music until the next symbol appears.

Chord Symbols



A chord symbol above the staff is sometimes the only indication of which notes should be used in the accompaniment. Chord symbols also may be used even when an accompaniment is written out, so that performers can read either the chord symbol or the notated music, as they prefer.

There is widespread agreement on how to name chords, but there are several different systems for writing chord symbols. Unfortunately, this can be a little confusing, particularly when different systems use the same symbol to refer to different chords. If you're not certain what chord is wanted, you can get useful clues both from the notes in the music and from the other chord symbols used. (For example, if the "minus" chord symbol is used, check to see if you can spot any chords that are clearly labelled as either minor or diminished.)

Examples of Chord Symbol Variety

Major chord	**C**	**CMaj**	**C△**		
Minor chord	**Cm**	**Cmin**	**C−**		
Augmented Chord	**Caug**	**C+**			
Diminished Chord*	**Cdim**	**C−**			
Major Seventh	**CM7**	**CMaj7**	**C△**	**C△7**	**C 7**
Minor Seventh	**Cm7**	**Cmin7**	**C−7**		
Diminished Seventh*	**Cdim7**	**C°**			

*It is so common to add the (diminished) seventh to the diminished chord, that the symbol for the diminished chord may be used with the assumption that you will add the diminished seventh.

There is unfortunately a wide variation in the use of chord symbols. In particular, notice that some symbols, such as the "minus" sign and the triangle, can refer to different chords, depending on the assumptions of the person who wrote the symbol.

Seventh Chords

If you take a basic triad and add a note that is a seventh above the root, you have a **seventh chord**. There are several different types of seventh chords, distinguished by both the type of triad and the type of seventh used. Here are the most common.

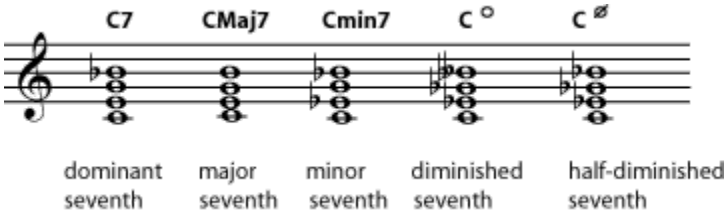
Seventh Chords

- Seventh (or "dominant seventh") chord = major triad + minor seventh
- Major Seventh chord = major triad + major seventh
- Minor Seventh chord = minor triad + minor seventh
- Diminished Seventh chord = diminished triad + diminished seventh (half step lower than a minor seventh)
- Half-diminished Seventh chord = diminished triad + minor seventh

An easy way to remember where each seventh is:

- The **major seventh** is one half step below the octave.
- The **minor seventh** is one half step below the major seventh.
- The **diminished seventh** is one half step below the minor seventh.

Common Seventh Chords



Listen to the differences between the C seventh, C major seventh, C minor seventh, C diminished seventh, and C half-diminished seventh.

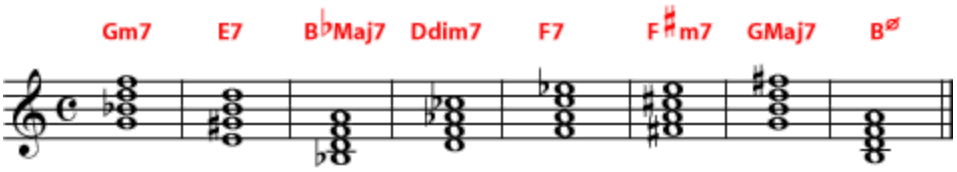
Exercise:

Problem:

Write the following seventh chords. If you need staff paper, you can print this PDF file

1. G minor seventh
2. E (dominant) seventh
3. B flat major seventh
4. D diminished seventh
5. F (dominant) seventh
6. F sharp minor seventh
7. G major seventh
8. B half-diminished seventh

Solution:

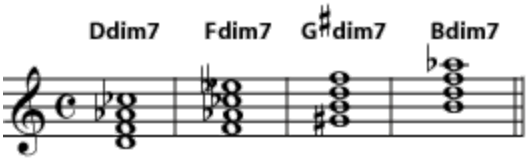


Exercise:

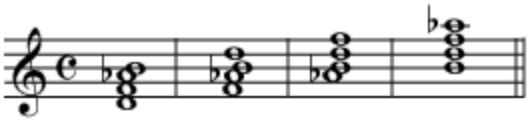
Problem:

Write a Ddim7, Fdim7, G#dim7, and Bdim7. Look closely at the chords you have written and see if you can notice something surprising about them. (Hint: try rewriting the chords enharmonically so that all the notes are either natural or (single) flat.

Solution:



Respell each chord so that you are only using natural and (single) flat notes:

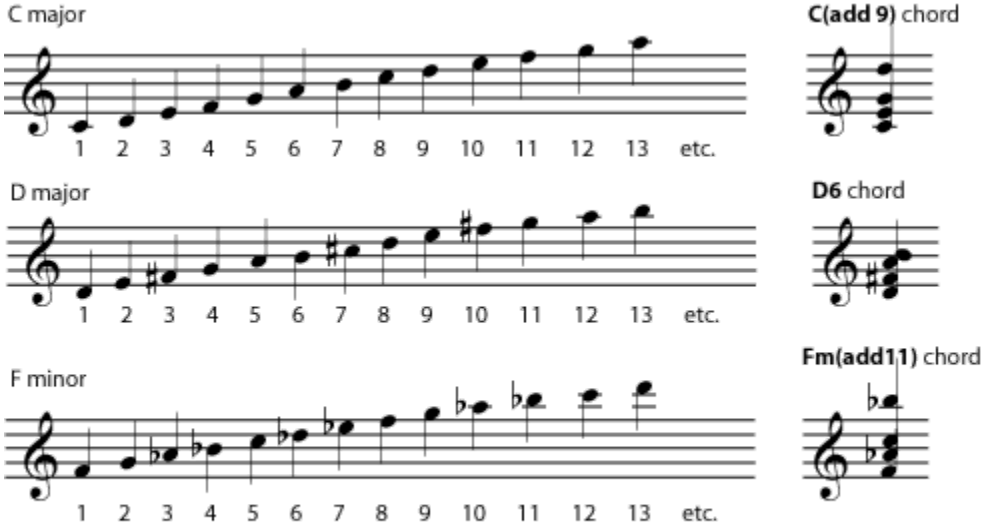


All of the chords contain the (enharmonic) equivalent of the same four notes: D , F , A♭, and B , so these chords sound like inversions of each other. There are two other sets of enharmonically equivalent diminished seventh chords; how quickly can you find them?

Added Notes, Suspensions, and Extensions

The seventh is not the only note you can add to a basic triad to get a new chord. You can continue to **extend** the chord by adding to the stack of thirds, or you can **add** any note you want. The most common additions and extensions add notes that are in the scale named by the chord.

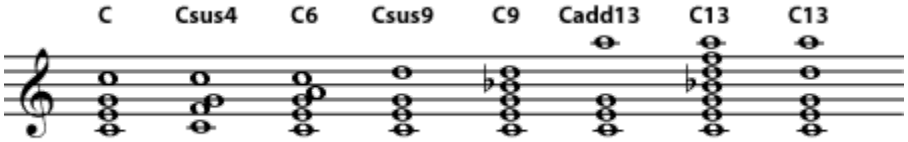
Extending and Adding Notes to Chords



To find out what to call a note added to a chord, count the notes of the scale named by the chord.

The first, third, and fifth (1, 3, and 5) notes of the scale are part of the basic triad. So are any other notes in other octaves that have the same name as 1, 3, or 5. In a C major chord, for example, that would be any C naturals, E naturals, and G naturals. If you want to add a note with a different name, just list its number (its **scale degree**) after the name of the chord.

Adding to and Extending Chords

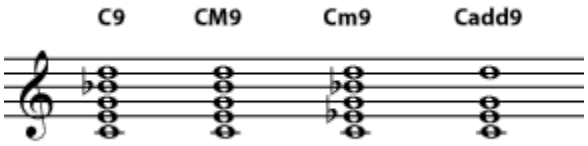


Labelling a number as "sus" (suspended) implies that it replaces the chord tone immediately below it. Labelling it "add" implies that only that note is added. In many other situations, the performer is left to decide how to play the chord most

effectively. Chord tones may or may not be left out. In an extended chord, all or some of the notes in the "stack of thirds" below the named note may also be added.

Many of the higher added notes are considered **extensions** of the "stack of thirds" begun in the triad. In other words, a C13 can include (it's sometimes the performer's decision which notes will actually be played) the seventh, ninth, and eleventh as well as the thirteenth. Such a chord can be dominant, major, or minor; the performer must take care to play the correct third and seventh. If a chord symbol says to "add13", on the other hand, this usually means that only the thirteenth is added.

A Variety of Ninth Chords

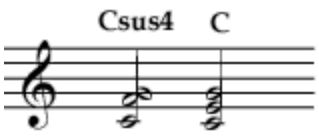


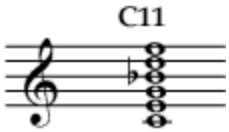
Take care to use the correct third and seventh - dominant, major, or minor - with extended chords. If the higher note is labelled "add", don't include the chord extensions that aren't named.

Note: All added notes and extensions, including sevenths, introduce dissonance into the chord. In some modern music, many of these dissonances are heard as pleasant or interesting or jazzy and don't need to be resolved. However, in other styles of music, dissonances need to be

resolved, and some chords may be altered to make the dissonance sound less harsh (for example, by leaving out the 3 in a chord with a 4).

You may have noticed that, once you pass the octave (8), you are repeating the scale. In other words, C2 and C9 both add a D, and C4 and C11 both add an F. It may seem that C4 and C11 should therefore be the same chords, but in practice these chords usually do sound different; for example, performers given a C4 chord will put the added note near the bass note and often use it as a temporary replacement for the third (the "3") of the chord. On the other hand, they will put the added note of a C11 at the top of the chord, far away from the bass note and piled up on top of all the other notes of the chord (including the third), which may include the 7 and 9 as well as the 11. The result is that the C11 - an **extension** - has a more diffuse, jazzy, or impressionistic sound. The C4, on the other hand, has a more intense, needs-to-be-resolved, classic **suspension** sound. In fact, 2, 4, and 9 chords are often labelled **suspended** (sus), and follow the same rules for resolution in popular music as they do in classical.



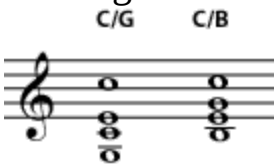


Low-number added notes and high-number added notes are treated differently. So even though they both add an F, a C4 suspension will sound quite different from a C11 extended chord.

Bass Notes

The bass line of a piece of music is very important, and the composer/arranger often will want to specify what note should be the lowest-sounding in the chord. At the end of the chord name will be a slash followed by a note name, for example C/E. The note following the slash should be the bass note.

Naming the Bass Note



The note following the slash is the bass note of the chord. It can be a note that is already in the chord - making the chord a first or second inversion - or it can be an added note, following the same basic rules as other added notes (including

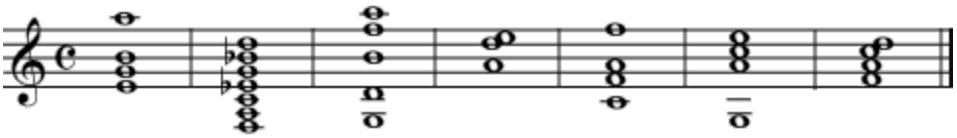
using it to replace other notes in the chord).

The note named as the bass note can be a note normally found in the chord - for example, C/E or C/G - or it can be an added note - for example C/B or C/A. If the bass note is not named, it is best to use the tonic as the primary bass note.

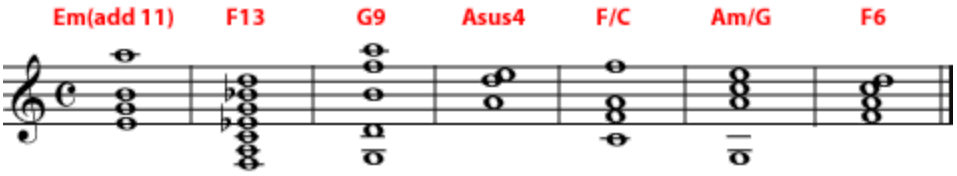
Exercise:

Problem:

Name the chords. (Hint: Look for suspensions, added notes, extensions, and basses that are not the root. Try to identify the main triad or root first.)



Solution:



Exercise:

Problem:

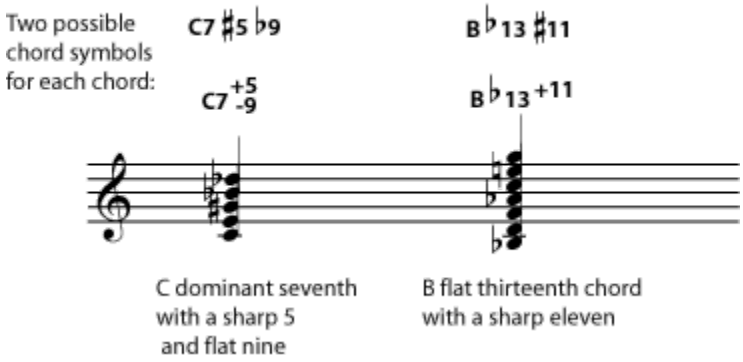
For guitarists, pianists, and other chord players: Get some practical practice. Name some chords you don't have memorized (maybe F6, Am/G, Fsus4, BM7, etc.). Chords with fingerings that you don't know but with a sound that you would recognize work best for this exercise. Decide what notes must be in those chords, find a practical fingering for them, play the notes and see what they sound like.

Solution:
You can check your work by

- listening to the chords to see if they sound correct
- playing your chords for your teacher or other trained musician
- checking your answers using a chord manual or chord diagrams

Altering Notes and Chords

If a note in the chord is not in the major or minor scale of the root of the chord, it is an **altered note** and makes the chord an **altered chord**. The alteration - for example "flat five" or "sharp nine" - is listed in the chord symbol. Any number of alterations can be listed, making some chord symbols quite long. **Alterations are not the same as accidentals.** Remember, a chord symbol always names notes in the scale of the chord root, ignoring the key signature of the piece that the chord is in, so the alterations are from the scale of the chord, not from the key of the piece.
Altered Chords



There is some variation in the chord symbols for altered chords. Plus/minus or sharp/flat symbols may appear before or after the note number. When sharps and flats are used, remember that the alteration is always from the scale of the chord root, not from the key signature.

Exercise:

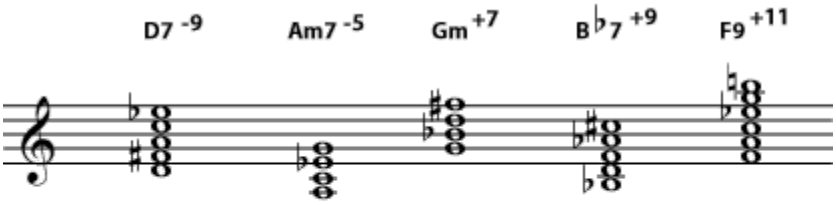
Problem:

On a treble clef staff, write the chords named. You can print this PDF file if you need staff paper for this exercise.

1. D (dominant) seventh with a flat nine
2. A minor seventh with a flat five
3. G minor with a sharp seven
4. B flat (dominant) seventh with a sharp nine
5. F nine sharp eleven

Solution:

Notice that a half-diminished seventh can be (and sometimes is) written as it is here, as a minor seventh with flat five.



Note that a "half-diminished seventh" may be written as a "minor seventh with flat five", as it is here.

The "minor chord with sharp seventh" is sometimes referred to as a "minor, major seventh" chord, for example **Gm7**

Sight-Reading Music

Objectives

1. To facilitate accurate sight-reading skills through the use of learned procedures which are to become habits of mind.

2. To develop the discipline to apply these skills under performance pressure.

3. To construct an inner frame of reference on which to build more and more sophisticated skills as the student develops.

4. To confirm and solidify these skills until they become integral to the inner thinking and translated into automatic action in performance, audition and other stressful circumstances.

Lesson Procedures:

A. Skills

Sight-reading skills may be developed by mastering eight content areas and using one specific physical skill. Each content area should be covered carefully and thoroughly with the "eyes ahead" physical skill utilized in each content area. That is, the eight parameters of quick and accurate sight-reading should be taught in the context of using the physical skill.

Content Areas

- a. Key structure
- b. Meter
- c. Form
- d. Tempo
- e. Phrase shape
- f. Dynamics
- f. Articulation
- g. Style

Physical Technique: When confronted with a new piece prior to a sight-reading effort, either during a rehearsal or an audition, the scanning, or "eyes ahead" technique is necessary after an initial brief analysis period when key, tempo, and other primary foci are considered.

B. Psychological Considerations

1. Inner awareness. See video "Inner Game of Music."
2. Inner hearing.
3. Confidence building through daily practice.
4. Audition rehearsals.
5. Positive self-talk.
6. What if the worse thing you can image would happen? So what?! (From Perls, Gestalt Therapy Verbatim, "What if all your catastrophic expectations came true?")

IV. Materials needed

- Circle of 5ths chart
- Rhythmic sampling
- Form diagrams
- Tempo (conducting practice)
- Shape in music diagrams
- Dynamic chart
- Articulation chart
- Historical periods chart
- Video Inner Game of Music
- Video "The Orchestra" (Dudley Moore)

V. Materials to Content Area Table

1. Key structure: Circle of 5ths chart. Basic theory: scale and interval recognition, chord structure, cadences, major/minor tonality, modes,

keys areas and modulation.
2. Meter: Rhythmic sampling.
3. Form: Form diagrams; listening and score recognition.
4. Tempo: Conducting practice; batons and metronomes.
5. Phrase Shape: Shape in music diagrams.
6. Dynamics: Dynamics chart; score recognition.
7. Articulation: Articulations chart; computer graphics to creative articulation marks.
8. Style: Historical periods chart; readings from Grout assigned in library references area; listening.

VI. Instructional Strategies

1. Approach each new piece in terms of meter, key structure, form, historical setting, biographical insight, or key data relevant to the work. [Academic focus]
2. Call attention to and study commonalities between pieces with conducting patterns, rhythmic patterns, form analyses, dynamic shapes, or compositional techniques. [Academic focus]
3. Reinforce theoretical learnings through repetition of key concepts within the context of similarly designed harmonic schemes. Use of computer programs designed for ear training and theory practice, as well as dbases, notation programs and CD ROMS. [Technological focus]
4. Reinforce students' notion of their ability to hear, analyze, reproduce, and enjoy music of different periods and styles. [Humanistic focus]
5. Develop character, sensitivity, patience and interpersonal skills through group cooperation. (E.g., the ability to both lead and follow, to assert one's own ideas as well as respond to the needs of the group, etc.) [Humanistic focus]
6. Promote and inspire an interest in research by instigating "scavenger hunts" for musicological data. Use of common research tools such as Grove's, Harvard's, Baker's and biographic research strategies. [Academic focus]

VII. Concurrent Objectives

1. To heighten awareness of human history through the pathway of music history.
2. To make students aware of harmonic relationships, within the framework of traditional harmonic practice.
3. To impart a good general, working knowledge of music history and theory.
4. To facilitate an understanding of sight-singing and sight-reading by means of an intellectual frame of reference.
5. To enhance multicultural, multiethnic and multilingual sensibilities.
6. To enlighten students' world view and the possibilities within that spectra by means of current technological developments.

VIII. Evaluation: Pretest and Post Test Strategies

A Music pretest should be given at the beginning of the students' career. Students should be told that it is for evaluation only, that they should just answer as many questions as they can and that after evaluation by the respective teacher, the test will be returned to the student with the instruction that an identical, though resorted test, will be readministered at the end of the coursework. In this way, the students will be enlightened with respect to the material which they are to learn through the coursework.

Post tests are a more serious affair, as the students will be expected to pass with a certain number of answers correct. Second post tests can be given, however, if tutorials are needed. Generally this is not the case.

While the pre- and post tests cover a much wider content area than the specific one addressed in these notes, the wider context can be seen to facilitate the sight reading goals sketched earlier.

Dynamics and Accents in Music
An overview of the musical terms related to the dynamics, or loudness, of music, including accents.

Dynamics

Sounds, including music, can be barely audible, or loud enough to hurt your ears, or anywhere in between. When they want to talk about the loudness of a sound, scientists and engineers talk about amplitude. Musicians talk about **dynamics**. The amplitude of a sound is a particular number, usually measured in decibels, but dynamics are relative; an orchestra playing fortissimo sounds much louder than a single violin playing fortissimo. The exact interpretation of each dynamic marking in a piece of music depends on:

- comparison with other dynamics in that piece
- the typical dynamic range for that instrument or ensemble
- the abilities of the performer(s)
- the traditions of the musical genre being performed
- the acoustics of the performance space

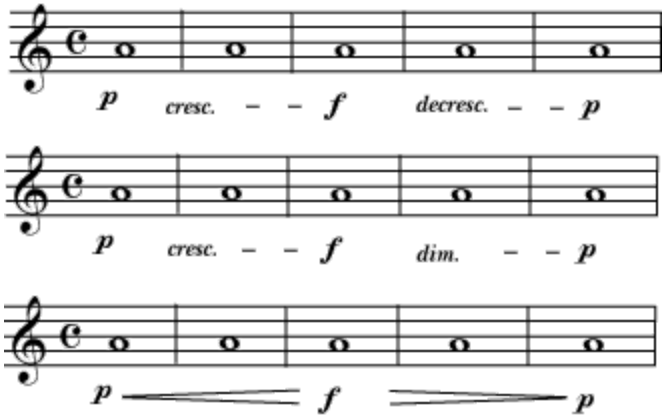
Traditionally, dynamic markings are based on Italian words, although there is nothing wrong with simply writing things like "quietly" or "louder" in the music. Forte means loud and piano means quiet. The instrument commonly called the "piano" by the way, was originally called a "pianoforte" because it could play dynamics, unlike earlier popular keyboard instruments like the harpsichord and spinet.
Typical Dynamic Markings

mf	mezzo forte	=	medium loud (pronounced "MET-soh FOR-tay")
f	forte	=	loud ("FOR-tay")
ff	fortissimo	=	very loud ("for-TISS-im-oh")
fff	fortisissimo	=	very, very loud ("FOR-tiss-SISS-im-oh")
ffff	and so on...		

mp	mezzo piano	=	medium quiet ("MET-soh PYAN-oh")
p	piano	=	quiet ("PYAN-oh")
pp	piannissimo	=	very quiet ("PEE-an-ISS-im-oh")
ppp	pianississimo	=	very, very quiet ("PEE-an-iss-ISS-im-oh")
pppp	and so on...		

When a composer writes a forte into a part, followed by a piano, the intent is for the music to be loud, and then suddenly quiet. If the composer wants the change from one dynamic level to another to be gradual, different markings are added. A crescendo (pronounced "cresh-EN-doe") means "gradually get louder"; a decrescendo or diminuendo means "gradually get quieter".

Gradual Dynamic Markings

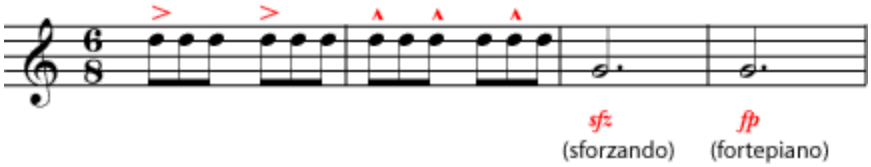


Here are three different ways to write the same thing: start softly (piano), gradually get louder (crescendo) until the music is loud (forte), then gradually get quieter (decrescendo or diminuendo) until it is quiet (piano) again.

Accents

A composer may want a particular note to be louder than all the rest, or may want the very beginning of a note to be loudest. **Accents** are markings that are used to indicate these especially-strong-sounding notes. There are a few different types of written accents (see [link]), but, like dynamics, the proper way to perform a given accent also depends on the instrument playing it, as well as the style and period of the music. Some accents may even be played by making the note longer or shorter than the other notes, in addition to, or even instead of being, louder. (See articulation for more about accents.)

Common Accents



The exact performance of each type of accent depends on the instrument and the style and period of the music, but the sforzando and fortepiano-type accents are usually louder and longer, and more likely to be used in a long note that starts loudly and then suddenly gets much softer. Caret-type accents are more likely to be used to mark shorter notes that should be stronger than unmarked notes.